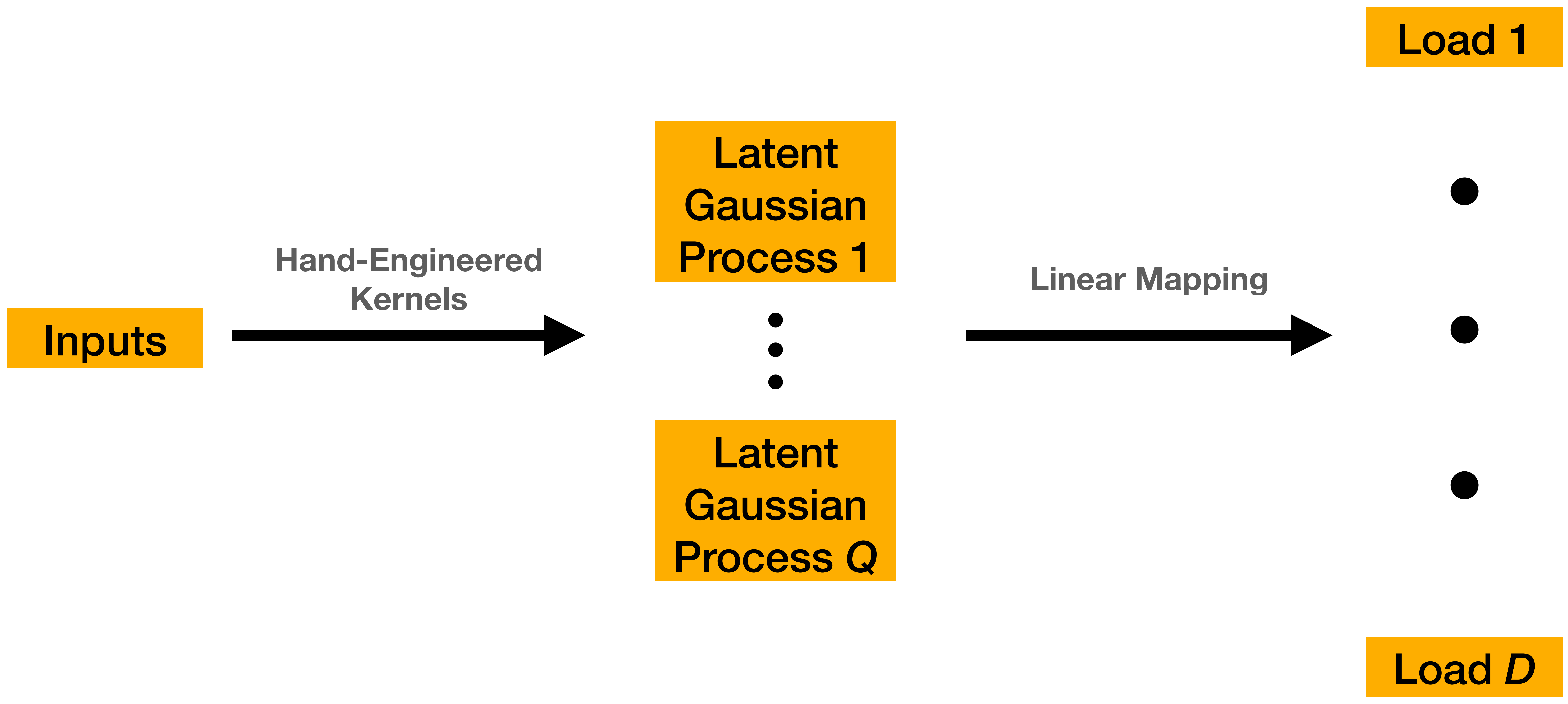
Variational Semiparametric Latent Factor Models for Time Series Analysis

- D loads modelled with a semiparametric latent factor model with Q latent Gaussian Processes (GPs) ($Q \ll D$).
  - Linear mapping takes latent GPs to output loads.
  - Latent GP kernels hand-engineered based on initial data exploration.
- Kernel hyperparameters, linear mapping and observation noise learned at training time, posterior predictive distribution given at test time.
  - Efficient training and prediction allowed with variational inference to exploit latent GP covariance structure.



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